EARLY HAZARD RANKING SYSTEM SITE

NO REFERENCES AVAILABLE

SCA00179

SITE SUMMARY

SCRDI Bluff Road Site

Columbia, S.C.

The SCRDI Bluff Road storage site is located on State Highway 48 (Bluff Road) about 7 miles southeast of downtown Columbia, South Carolina. The property, leased from Mr. Oscar Seidenberg, covers about 7 acres, of which about 2 acres are actually used for waste storage.

The storage site is characterized by a central metal-walled building in which salvageable wastes are stored. Two small ponds located at the northern end of the site are remnants of the lime slurry disposal ponds used by the acetylene manufacturer that once occupied the property. The western pond contains dried lime and is usually dry; the eastern pond usually holds water at a depth of about 30 cm. Waste containers cover most of the open space within the storage area with the exception of an unpaved entrance drive from the highway to the building. The container are mostly 55 gallon drums of which many are stacked two-high, but smaller cans, bottles and jars are scattered throughout. The storage area is circled by a six-foot-high chain link fence which is in poor condition in several places and open near the rear of the site. Drums that have been placed between the highway and the front gate were recently enclosed by another chain link fence by order of the SCDHEC.

During early 1982, a group of responsible generators contracted with a cleanup contractor TRI, Inc., to cleanup about two thirds of the site. At the present, the preceding has been accomplished. The remaining wastes will likely be cleaned up under Superfund.

SCR 9 DI BLUFF ROAD
SOUTH CAROLINA

Facility name: SCR&D Bluff Road

Location: Hwy 48 Richland County, Near Columbia SC

EPA Region: IV

Person(s) in charge of the facility: [illegible]

Name of Reviewer: Christopher M. Lack Date: 9/1/92

General description of the facility:

(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

This is a site leased by South Carolina Recycling and Disposal that contains about 7,200 drums of chemicals that have been improperly stored. The drums have deteriorated and are leaking their contents into the air and onto the ground.

Scores: S_M = [illegible] S_{gw} = [illegible] S_{sw} = [illegible] S_a = [illegible]

S_{FE} = 63.33

S_{DC} = 37.50

FIGURE 1
HRS COVER SHEET

Ground Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)		Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0	45	1		45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.						
2 Route Characteristics						3.2
Depth to Aquifer of Concern	0 1 (2) 3		2	4	6	
Net Precipitation	0 1 (2) 3		1	2	3	
Permeability of the Unsaturated Zone	0 (1) 2 3		1	1	3	
Physical State	0 1 2 (3)		1	3	3	
Total Route Characteristics Score				12	15	
3 Containment	0 1 2 (3)		1	3	3	3.3
4 Waste Characteristics						3.4
Toxicity/Persistence	0 3 6 9 12 15 (18)		1	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 (7) 8		1	7	8	
Total Waste Characteristics Score				25	26	
5 Targets						3.5
Ground Water Use	0 1 2 (3)		3	9	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 20 24 (30) 32 35 40		1	30	40	
Total Targets Score				39	49	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				35,100	57,330	
7 Divide line 6 by 57,330 and multiply by 100			S_{gw} =	61.22		

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)		Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0	45	1	45	45	4.1
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.						
2 Route Characteristics						4.2
Facility Slope and Intervening Terrain	0 1 2 3		1		3	
1-yr. 24-hr. Rainfall	0 1 2 3		1		3	
Distance to Nearest Surface Water	0 1 2 3		2		6	
Physical State	0 1 2 3		1		3	
Total Route Characteristics Score					15	
3 Containment	0 1 2 3		1		3	4.3
4 Waste Characteristics						4.4
Toxicity/Persistence	0 3 6 9 12 15 (18)		1	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 (7) 8		1	8	8	
Total Waste Characteristics Score				26	26	
5 Targets						4.5
Surface Water Use	0 1 (2) 3		3	6	9	
Distance to a Sensitive Environment	0 (1) 2 3		2	2	6	
Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40		1	0	40	
Total Targets Score				8	55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				5,200	64,350	
7 Divide line 6 by 64,350 and multiply by 100			S_{sw} =		8.08	

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

Air Route Work Sheet						
Rating Factor	Assigned Value (Circle One)		Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0	45	1	45	45	5.1
Date and Location:						
Sampling Protocol:						
If line 1 is 0, the S_a = 0. Enter on line 5. If line 1 is 45, then proceed to line 2.						
2 Waste Characteristics						5.2
Reactivity and Incompatibility	0 1 2 (3)		1	3	3	
Toxicity	0 1 2 (3)		3	9	9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 (7) 8		1	7	8	
Total Waste Characteristics Score				20	20	
3 Targets						5.3
Population Within 4-Mile Radius	0 9 12 15 (18) 21 24 27 30		1	18	30	
Distance to Sensitive Environment	(0) 1 2 3		2	0	6	
Land Use	0 1 2 (3)		1	3	3	
Total Targets Score				21	39	
4 Multiply 1 x 2 x 3				17,955	35,100	
5 Divide line 4 by 35,100 and multiply by 100				S_a = 51.15		

FIGURE 9
AIR ROUTE WORK SHEET

	s	s^2
Groundwater Route Score (S_{gw})		
Surface Water Route Score (S_{sw})		
Air Route Score (S_a)		
$s_{gw}^2 + s_{sw}^2 + s_a^2$		
$\sqrt{s_{gw}^2 + s_{sw}^2 + s_a^2}$		
$\sqrt{s_{gw}^2 + s_{sw}^2 + s_a^2} \,/\, 1.73 = S_M =$		

FIGURE 10
WORKSHEET FOR COMPUTING S_M

Fire and Explosion Work Sheet						
Rating Factor	Assigned Value (Circle One)		Multi-plier	Score	Max. Score	Ref. (Section)
1 Containment	1	3	1	3	3	7.1
2 Waste Characteristics						7.2
Direct Evidence	0	(3)	1		3	
Ignitability	0 1 2	(3)	1		3	
Reactivity	0 1 2	3	1		3	
Incompatibility	0 1 2	3	1		3	
Hazardous Waste Quantity	0 1 2 3 4 5 6	(7) 8	1		8	
Total Waste Characteristics Score					20	
3 Targets						7.3
Distance to Nearest Population	0 1 2 3 4	5	1		5	
Distance to Nearest Building	0 1 2	3	1		3	
Distance to Sensitive Environment	0 1 2	3	1	3	3	
Land Use	0 1 2	3	1		3	
Population Within 2-Mile Radius	0 1 2	(3) 4 5	1		5	
Buildings Within 2-Mile Radius	0 1	(2) 3 4 5	1		5	
Total Targets Score					24	
4 Multiply 1 x 2 x 3					1,440	
5 Divide line 4 by 1,440 and multiply by 100			S_{FE} =			

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
[1] Observed Incident	0 45	1	45	45	8.1
If line [1] is 45, proceed to line [4] If line [1] is 0, proceed to line [2]					
[2] Accessibility	0 1 2 3	1		3	8.2
[3] Containment	0 15	1		15	8.3
[4] Waste Characteristics Toxicity	0 1 2 3	5	15	15	8.4
[5] Targets					8.5
Population Within a 1-Mile Radius	0 1 2 3 4 5	4	12	20	
Distance to a Critical Habitat	0 1 2 3	4	3	12	
Total Targets Score			12	32	
[6] If line [1] is 45, multiply [1] x [4] x [5] If line [1] is 0, multiply [2] x [3] x [4] x [5]			5400	21,600	
[7] Divide line [6] by 21,600 and multiply by 100			S_{DC} = 25		

FIGURE 12
DIRECT CONTACT WORK SHEET

June 28, 1982

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: The purpose of these records is to provide a convenient way to prepare an auditable record of the data and documentation used to apply the Hazard Ranking System to a given facility. As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference that will make the document used for a given data point easier to find. Include the location of the document and consider appending a copy of the relevant page(s) for ease in review.

FACILITY NAME: SCR+D Bluff Rd.

LOCATION: Hwy 48 Richland County Near Columbia SC

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

1) Carbon tetrachloride
2) tetrachloroethene
3) chloroform
4) dichlorobenzene
5) bromodichloromethane

Rationale for attributing the contaminants to the facility:

monitoring wells at the facility

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

Depth from the ground surface to the lowest point of waste disposal/ storage:

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

Mean annual lake or seasonal evaporation (list months for seasonal):

Net precipitation (subtract the above figures):

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Permeability associated with soil type:

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Method with highest score:

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Carbon tetrachloride

Compound with highest score:

Carbon tetrachloride 3-3

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

7500 drums

Basis of estimating and/or computing waste quantity:

aerial photo

* * *

5 TARGETS

Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:
drinking water

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:
garage next door

Distance to above well or building:
500 feet

Population Served by Ground Water Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:
just ~~one~~ over 1,000 people in 3 mile radius

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

Total population served by ground water within a 3-mile radius:
1,100 counting Westinghouse facility

SURFACE WATER ROUTE

1 OBSERVED RELEASE 45

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

Contaminants in pond on-site
Chloroform, trichloroethene, toluene

Rationale for attributing the contaminants to the facility:

the pond is on-site & excess water runs off into a stream

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2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

Name/description of nearest downslope surface water:

Average slope of terrain between facility and above-cited surface water body in percent:

Is the facility located either totally or partially in surface water?

Is the facility completely surrounded by areas of higher elevation?

1-Year 24-Hour Rainfall in Inches

Distance to Nearest Downslope Surface Water

Physical State of Waste

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* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Method with highest score:

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated
Chloroform

Compound with highest score:
chloroform

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

7500 drums

Basis of estimating and/or computing waste quantity:

aerial photo

* * *

5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

recreational

Is there tidal influence?

NO

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

There is a wetland less than 1 mile away

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

NONE

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

Total population served:

None

Name/description of nearest of above water bodies:

Distance to above-cited intakes, measured in stream miles.

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

MEK

Date and location of detection of contaminants

April 23, 1982 on the boundary of the site.

Methods used to detect the contaminants:

meter, HNu etc.

Rationale for attributing the contaminants to the site:

it was detected coming from leaking drum as well as at the site boundary.

* * *

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

Picric acid

Most incompatible pair of compounds:

There are spent acids and spent caustics

Toxicity

Most toxic compound:

Chloroform

Hazardous Waste Quantity

Total quantity of hazardous waste:

7500 drums

Basis of estimating and/or computing waste quantity:

avail estimate

* * *

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

(0 to 4 mi) 0 to 1 mi (0 to 1/2 mi) 0 to 1/4 mi

900 persons work at Westinghouse which is < 1/2 mile away
→ about 4000 persons from map count

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

C

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Distance to critical habitat of an endangered species, if 1 mile or less:

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Westinghouse property begins across the street making it 1/4 mile away

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

N/A

Distance to residential area, if 2 miles or less:

houses are within 1 mile of site

Distance to agricultural land in production within past 5 years, if 1 mile or less:

N/A

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

N/A

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

N/A

RCRA/NPL POLICY QUESTIONNAIRE FOR INITIAL SCREENING

3212

Site Name SCRDI Bluff Road

City Columbia State SC

Facility I.D. Number SCD000622787

Type of Facility: Generator____ Transporter____ TSD____

I. RCRA APPLICABILITY	yes	no
Does the facility have RCRA interim status?	✓	—
Did the facility ever have RCRA interim status?	✓	—
Does the facility have a final or post-closure permit? If so, date issued _____	—	✓
Is the facility a non-notifier that has been identified by States or EPA?	—	✓
Is the facility a known or possible protective filer?	—	✓

STOP HERE IF ALL ANSWERS TO QUESTIONS IN SECTION I ARE NO

II. FINANCIAL STATUS		
Is the facility owned by an entity that has filed for bankruptcy under federal laws (Chapter 7 or 11) or State laws?	—	✓

If yes, what has it filed under?
Chapter 7___ Chapter 11___ Other___

III. ENFORCEMENT

RCRA Status

Has the facility lost authorization to operate via LOIS, 3005(c) permit denial, 3008(h) IS termination, 3005(d) permit revocation?	—	✓	CHECK WITH RCRA
Has the facility's Interim Status been terminated via another mechanism (i.e. administrative termination)?			

CERCLA Status

What CERCLA financed remedial or removal activities have been initiated at the site? (RI/FS, RD/RA, O&M, forward planning, and removal; does not include enforcement or PA/SI activities) RI Completed. FS not started yet.

Enforcement Status

	YES	NO
In general, would you characterize the facility as demonstrating an unwillingness to undertake corrective action based on prior State, CERCLA or RCRA actions?	____	✓

If yes, please describe and cite the authorities exercised.

SCDHEC reported to EPA April 1, 1982 that the facility was closed.

Is the owner/operator a party to any enforcement action at the site?	____	✓

If not, why not? Generators have been involved in successful cost recovery

Are any PRPs (including owner/operators) undertaking remedial studies or action in response to CERCLA enforcement authorities? What is the extent/type of work that has been completed (RI/FS, etc.) and who (generators, owner/operator, etc.) is conducting the work? No .